

Catapult



*Explore forces and motion
with this fun simple machine.*

Kit contains:

- 3 rubber bands
- 6 craft sticks
- 1 plastic spoon
- 2 pom-poms
- 1 target



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INSTRUCTIONS

(1) Take 5 craft sticks and stack them up. Wrap a rubber band around each end so they stay together. Set that bundle aside.



(2) Wrap the remaining rubber band around the bottom of the spoon and the end of the remaining craft stick.

(3) Put your craft stick bundle between the spoon and the craft stick base. Closest to the part where they're rubber-banded together is best.

(4) Put a pom-pom in the spoon. Push the spoon down with your finger (hold the other end to keep it from moving) and then let go. Whee!



(5) You can use your catapult and target to play a game. Launch the pom-pom at the target and see where it lands. Keep track of your score and take

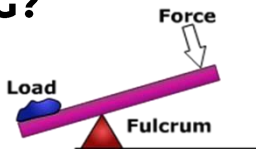
as many turns as you want. You can play by yourself or challenge a friend.



It may take a few tries to get it to land on the target. Experiment with the distance between the target and catapult, how far down to push the spoon before launch, etc. Experimentation is science!

WHAT'S HAPPENING?

Your catapult is a type of **lever**, which is a **simple machine**. A lever works by using four parts: (1) The **arm**. That's the part that moves. In your catapult, it's the spoon. (2) The **fulcrum**. That's the part that stays still, which the arm moves around or over. In your catapult, it's the bundle of 5 craft sticks. (3) The **load**. That's the thing you're moving. In your catapult, it's the pom-pom. (4) The **force**. That's the thing that makes the arm of the lever move. In your catapult, it's your finger pushing down the spoon.



TARGET SPORTS AND GAMES

Many sports and games use targets similar to your catapult target. Some of them include darts, curling, archery, sport shooting, and Skee-ball.



The upcoming Summer Olympics will have athletes competing in archery and sport shooting. The Winter Olympics (next happening in 2026) will have teams

competing in curling. Darts and Skee-ball aren't Olympic sports, but they're still fun games.

All of these games and sports have the goal of getting an object as close to the center ring (bull's-eye) as possible, just like your pom-pom and target. Some of them use a device to launch the object toward the target (like your catapult) and some just involve throwing it.

